

R E M A R K S

Reconsideration of this application, as amended, is respectfully requested.

THE CLAIMS

Claim 1 has been amended to include the subject matter of claim 2 as originally filed, and claims 2-3 and 5 have been amended to better accord with amended claim 1.

In addition, new claim 9 has been added to recite the subject matter of claim 5 as originally filed, depending from claim 1; new claim 10 has been added to recite the combined subject matter of claims 1 and 3 as originally filed; new claim 11 has been added to recite the subject matter of claim 5 as originally filed, depending from new claim 10; and new claim 12 has been added to recite the combined subject matter of claims 1 and 5 as originally filed.

No new matter has been added, and it is respectfully requested that the amendments to the claims be approved and entered.

THE PRIOR ART REJECTION

Claim 1 was rejected under 35 USC 102 as being anticipated by JP 2000-292267 (which was identified by the Examiner as EP 11095563) and claims 2-8 were rejected under 35 USC 103 as

being obvious in view of JP 2000-292267 (hereinafter JP '267).<sup>1</sup>  
These rejections, however, are respectfully traversed with  
respect to the claims as amended hereinabove.

As described in the "Summary of the Invention" section of  
the present application, it is an object of the present invention  
to provide a temperature measuring device which can be used  
without requiring a heating mechanism, which can carry out  
accurate temperature measurement, which does not allow ice and  
snow to readily adhere thereto, and which avoids damage to itself  
as well as to an engine or the like even when ice and snow do  
adhere to and are subsequently detached from the temperature  
measuring device.

In order to achieve the above-mentioned object, the claimed  
present invention comprises a blade-shaped casing whose shape is  
set such that lumps of ice and snow detach at a stage of growth  
so as to prevent damage to the engine, the airframe or other  
equipment of an aircraft.

More specifically, according to the present invention as  
recited in amended claim 1, "an angle of inclination of each

---

<sup>1</sup> The document referred to by the Examiner as EP 11095563 is  
an abstract of Japanese Patent Application No. 11-0955653, whose  
Publication Number is 2000-192267. In addition, it is also noted  
that the EP 11095563 abstract publication erroneously omits  
Yokogawa Denshikiki Co. Ltd as a named applicant and also omits  
Suga Taro and Aibashi Kazunori as named inventors. (See the  
enclosed Japanese Patent Office English language abstract of  
Japanese Patent Application No. 11-0955653.)

blade surface of the casing with respect to a direction of a line of flow of the airflow is set such that lumps of ice and snow, which may form on the surfaces of the casing and which may detach from the casing and be blown downstream by the airflow into the engine, the airframe or other equipment of the aircraft, detach at a stage of growth so as to prevent damage to the engine, the airframe or the other equipment of the aircraft."

Similarly, according to the present invention as recited in new independent claim 10, "a width of a leading edge section of the casing with respect to a direction of a line of flow of the airflow is set such that lumps of ice and snow, which may form on the surfaces of the casing and which may detach from the casing and be blown downstream by the airflow into the engine, the airframe or other equipment of the aircraft, detach at a stage of growth so as to prevent damage to the engine, the airframe or the other equipment of the aircraft."

And according to the present invention as recited in new independent claim 12, "an angle of inclination of the leading edge section of the casing with respect to a direction of a line of flow of the airflow is set such that lumps of ice and snow, which may form on the surfaces of the casing and which may detach from the casing and be blown downstream by the airflow into the engine, the airframe or other equipment of the aircraft, detach

at a stage of growth so as to prevent damage to the engine, the airframe or the other equipment of the aircraft."

That is, according to the present invention as recited in each of amended claim 1 and new independent claims 10 and 12, the blade-shaped casing is formed in a shape to which ice and snow do not readily adhere, and such that even when ice and snow do adhere the lumps of ice and snow detach without growing to be large enough to damage the engine, the airframe or the other equipment of the aircraft.

JP '267, by contrast, merely discloses an earlier invention of the inventor of the claimed present invention. (See footnote 1 above.) Namely, JP '267 discloses a temperature detecting device for appropriately detecting the temperature at which ice and snow stick to a thermally sensitive part and its vicinity when the device is used under conditions of ice and snow. More specifically, as shown in Fig. 1 of JP '267, this publication discloses a temperature-detecting device 1 comprising a wing-shaped enclosure 2 that is installed along the direction of the course of air 10 and that has a thermally sensitive part 3 that is provided in a manner such that ice and snow sucked along with the air 10 adhere near a front end 4 but do not adhere to the thermally sensitive part 3 so that physical damage to the thermally sensitive part 3 can be prevented.

In other words, JP '267 discloses a temperature detecting device 1 that provides the thermally sensitive part 3 at the middle part of a loop part 7 of the wing-shaped enclosure 2 so that ice and snow drawn along with the air 10 do not adhere to the thermally sensitive part 3.

It is respectfully pointed out, however, that in the temperature detecting device 1 of JP '267, ice and snow do adhere all over the front end 4 of the wing-shaped enclosure 2, as shown, for example, in Fig. 1 of JP ' 267.

And it is respectfully submitted that JP '267 does not at all disclose, teach or suggest the feature of the present invention as recited in each of amended claim 1 and new independent claims 10 and 12, whereby the blade-shaped casing is formed in a shape to which ice and snow do not readily adhere, and such that even when ice and snow do adhere the lumps of ice and snow detach without growing to be large enough to damage the engine, the airframe or the other equipment of the aircraft.


Accordingly, it is respectfully submitted that the object, structure and effect of the invention disclosed in JP '267 are clearly different from the claimed present invention, and it is respectfully submitted that the present invention as recited in each of amended claim 1, claims 2-9 depending therefrom, and new claims 10-12 patentably distinguishes over JP '267 under 35 USC 102 as well as under 35 USC 103.

Application No. 10/077,086  
Response to Office Action

In view of the foregoing, entry of this Amendment, allowance of the claims and the passing of this application to issue are respectfully solicited.

If the Examiner has any comments, questions, objections or recommendations, the Examiner is invited to telephone the undersigned at the telephone number given below for prompt action.

Respectfully submitted,

  
Douglas Holtz  
Reg. No. 33,902

Frishauf, Holtz, Goodman & Chick, P.C.  
767 Third Avenue - 25th Floor  
New York, New York 10017-2023  
Tel. No. (212) 319-4900  
Fax No. (212) 319-5101

DH:iv  
encs.



# PATENT ABSTRACTS OF JAPAN

(11)Publication number : 2000-292267

(43)Date of publication of application : 20.10.2000

(51)Int.Cl.

G01K 7/18  
F02D 35/00  
G01K 1/14

(21)Application number : 11-095563

(71)Applicant : YOKOGAWA DENSHIKI CO LTD  
ISHIKAWAJIMA HARIMA HEAVY IND CO LTD

(22)Date of filing : 01.04.1999

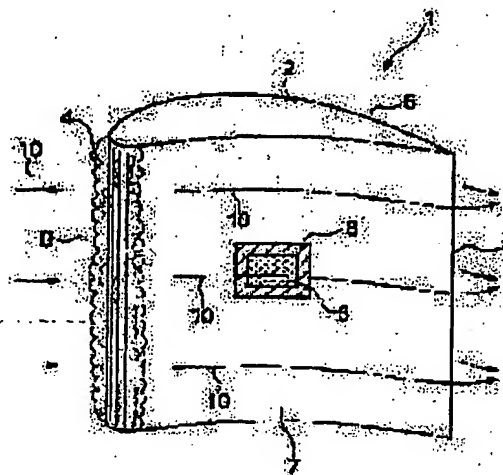
(72)Inventor : SUGA TARO  
AIBASHI KAZUNORI  
FUJII TATSUYA

## (54) TEMPERATURE-DETECTING DEVICE

### (57)Abstract:

**PROBLEM TO BE SOLVED:** To provide a temperature-detecting device for appropriately detecting temperature in which ice and snow handle stick to a thermally sensitive part and its vicinity, even if the device is used under the conditions of ice and snow.

**SOLUTION:** The temperature-detecting device 1 is provided with a wing-shaped enclosure 2 that is installed along the direction of the course of air 10 and a thermally sensitive part 3 that is provided at the middle part of a loop part 7 of the enclosure 2 so that it is surrounded by a heat insulation layer 8. By detecting the temperature of the air 10 flowing along the surface of the loop part 7, an entire temperature can be observed. Since ice and snow sucked along with the air 10 adhere near a front end 4, ice and snow do not adhere to the thermally sensitive part 3, enabling an appropriate temperature detection, and at the same time the physical damage of the thermally sensitive part 3 can be prevented.



## LEGAL STATUS

[Date of request for examination] 04.10.2001

[Date of sending the examiner's decision of rejection]

[Kind of final disposal of application other than the examiner's decision of rejection or application converted registration]

[Date of final disposal for application]

[Patent number]

[Date of registration]

[Number of appeal against examiner's decision of rejection]

[Date of requesting appeal against examiner's decision of rejection]

[Date of extinction of right]

RECEIVED  
SEP 11 2003  
TECHNOLOGY CENTER 280C